

**IN THE CLAIMS:**

1. (Currently Amended) A ~~compound~~ composition for increasing the concentration of a parent androgen in a subject in vivo, the parent androgen having a skeletal structure including a 4 position and a 17 position and the parent

androgen further having a 17 $\beta$ -hydroxy group comprising a 17 $\beta$ -hydroxy oxygen appended to the 17 position and a 17 $\beta$ -hydroxy hydrogen appended to the 17 $\beta$ -hydroxy oxygen, the ~~compound~~ composition comprising:

a substrate having the skeletal structure of the parent androgen comprising a 4 position and a 17 position corresponding to the 4 and 17 positions respectively of the parent androgen, the substrate comprising a carbon-carbon double bond at the 4 position, the skeletal structure of the parent androgen embodied in the substrate being selected from the group consisting of androst-4-ene-3 $\alpha$ ,17 $\beta$ -diol, and androst-4-ene-3 $\beta$ ,17 $\beta$ -diol, and mixtures thereof; and

a promoiety appended to the 17 $\beta$ -hydroxy oxygen of the substrate as a substitute for the hydroxy hydrogen of the parent androgen, the promoiety comprising an alkylcarbonate ester.

2. (Currently Amended) A ~~compound~~ composition as set forth in claim 1, wherein the alkylcarbonate ester has an alkyl chain length of less than 12.

3. (Currently Amended) A ~~compound~~ composition as set forth in claim 1, wherein the ~~compound~~ composition comprises androst-4-ene-3,17 $\beta$ -diol 17 $\beta$ -alkylcarbonate.

4. (Currently Amended) A compound composition as set forth in claim 1, wherein the compound composition comprises androst-4-ene-3,17 $\beta$ -diol 17 $\beta$ -ethylcarbonate.

5. (Currently Amended) A compound composition as set forth in claim 1, wherein the compound composition comprises androst-4-ene-3,17 $\beta$ -diol 3,17 $\beta$ -di(alkylcarbonate).

6. (Currently Amended) A compound composition as set forth in claim 1, wherein the compound composition comprises androst-4-ene-3,17 $\beta$ -diol 3,17 $\beta$ -di(ethylcarbonate).

7. (Currently Amended) A compound composition as set forth in claim 1, further including comprising a carrier.

8. (Currently Amended) A compound composition as set forth in claim 1, wherein the carrier comprises a solid carrier.

9. (Currently Amended) A compound composition as set forth in claim 1, wherein the carrier comprises a liquid carrier.

10. (Currently Amended) A compound composition as set forth in claim 1, wherein the carrier comprises a semi-solid carrier.

Claims 11-58 (cancelled)

59. (Currently Amended) A compound composition as set forth in claim 1, wherein the alkylcarbonate ester has an alkyl chain length of less than 11.

60. (Currently Amended) A compound composition as set forth in claim 1, wherein the alkylcarbonate ester comprises methyl carbonate.

61. (Currently Amended) A compound composition as set forth in claim 1,

wherein the alkylcarbonate ester comprises propyl carbonate.

62. (Currently Amended) A compound composition as set forth in claim 1,  
wherein the alkylcarbonate ester comprises isopropyl carbonate.

63. (Currently Amended) A compound composition as set forth in claim 1,  
wherein the alkylcarbonate ester comprises butyl carbonate.

64. (Currently Amended) A compound composition as set forth in claim 1,  
wherein the alkylcarbonate ester comprises isobutyl carbonate.

65. (Currently Amended) A compound composition as set forth in claim 1,  
wherein the alkylcarbonate ester comprises t-butyl carbonate.

66. (Currently Amended) A compound composition as set forth in claim 1,  
wherein the alkylcarbonate ester comprises valeryl carbonate.

67. (Currently Amended) A compound composition as set forth in claim 1,  
wherein the alkylcarbonate ester comprises hexyl carbonate.

68. (Currently Amended) A compound composition as set forth in claim 1,  
wherein the alkylcarbonate ester comprises heptyl carbonate.

69. (Currently Amended) A compound composition as set forth in claim 1,  
wherein the alkylcarbonate ester comprises octyl carbonate.

70. (Currently Amended) A compound composition as set forth in claim 1,  
wherein the alkylcarbonate ester comprises nonyl carbonate.

71. (Currently Amended) A compound composition as set forth in claim 1,  
wherein the alkylcarbonate ester comprises decyl carbonate.

72. (Currently Amended) A compound composition as set forth in claim 1,  
wherein the alkylcarbonate ester comprises undecyl carbonate.

73. (Currently Amended) A ~~compound~~ composition as set forth in claim 1,  
wherein the alkylcarbonate ester comprises dodecyl carbonate.

74. (Currently Amended) A ~~compound~~ composition for increasing the concentration of a parent androgen in a subject in vivo, the parent androgen having a skeletal structure including a 4 position and a 17 position and the parent androgen further having a  $17\beta$ -hydroxy group comprising a  $17\beta$ -hydroxy oxygen appended to the 17 position and a  $17\beta$ -hydroxy hydrogen appended to the  $17\beta$ -hydroxy oxygen, the ~~compound~~ composition comprising:

a substrate having the skeletal structure of the parent androgen comprising a 4 position and a 17 position corresponding to the 4 and 17 positions respectively of the parent androgen, the substrate comprising a carbon-carbon double bond at the 4 position, the skeletal structure of the parent androgen embodied in the substrate being selected from the group consisting of androst-4-ene- $3\alpha,17\beta$ -diol, and androst-4-ene- $3\beta,17\beta$ -diol, ~~and mixtures thereof; and~~

a promoiety appended to the  $17\beta$ -hydroxy oxygen of the substrate as a substitute for the hydroxy hydrogen of the parent androgen, the promoiety comprising an alkylcarbonate ester selected from the group consisting of a linear alkylcarbonate ester and a branched alkylcarbonate ester.